other activities. In some example structures according to this invention, the polymer foam material may encapsulate or include various elements, such as a fluid-filled bladder or moderator, that enhance the comfort, motion-control, stability, and/or ground or other contact surface reaction force attenuation properties of footwear **100**. In still other example structures, the midsole **131** may include additional elements that compress to attenuate ground or other contact surface reaction forces. For instance, the midsole may include column type elements to aid in cushioning and absorption of forces.

[0118] Outsole **132** is secured to a lower surface of midsole **131** in this illustrated example footwear structure **100** and is formed of a wear-resistant material, such as rubber or a flexible synthetic material, such as polyurethane, that contacts the ground or other surface during ambulatory or other activities. The material forming outsole **132** may be manufactured of suitable materials and/or textured to impart enhanced traction and slip resistance. The structure and methods of manufacturing the outsole **132** will be discussed further below. A foot contacting member **133** (which may be an insole member, a sockliner, a bootie member, a strobel, a sock, etc.) is typically a thin, compressible member that may be located within the void in upper **120** and adjacent to a lower surface of the foot (or between the upper **120** and midsole **131**) to enhance the comfort of footwear **100**. In some arrangements, an insole or sockliner may be absent, and in other embodiments, the footwear **100** may have a foot contacting member positioned on top of an insole or sockliner.

[0119] The outsole **132** shown in FIGS. **1** and **2** includes a plurality of incisions or sipes **136** in either or both sides of the outsole **132**. These sipes **136** may extend from the bottom of the outsole **132** to an upper portion thereof or to the midsole **131**. In one arrangement, the sipes **136** may extend from a bottom surface of the outsole **132** to a point halfway between the bottom of the outsole **132** and the top of the outsole **132**. In another arrangement, the sipes **136** may extend from the bottom of the outsole **132** to a point greater than halfway to the top of the outsole **132**. In yet another arrangement, the sipes **136** may extend from the bottom of the outsole **132** to a point where the outsole **132** meets the midsole **131**. The sipes **136** may provide additional flexibility to the outsole **132**, and thereby allow the outsole to more freely flex in the natural directions in which the wearer's foot flexes. In addition, the sipes **136** may aid in providing traction for the wearer. It is understood that embodiments of the present invention may be used in connection with other types and configurations of shoes, as well as other types of footwear and sole structures.

[0120] FIGS. **3-5** illustrate exemplary embodiments of the footwear **100** incorporating a sensor system **12** in accordance with the present invention. The sensor system **12** includes a force sensor assembly **13**, having a plurality of sensors **16**, and a communication or output port **14** in communication with the sensor assembly **13** (e.g., electrically connected via conductors). In the embodiment illustrated in FIG. **3**, the system **12** has four sensors **16**: a first sensor **16**A at the big toe (first phalange) area of the shoe, two sensors **16**B-C at the forefoot area of the shoe, including a second sensor **16**B at the first metatarsal head region and a third sensor **16**C at the fifth metatarsal head region, and a fourth sensor **16**D at the heel. These areas of the foot typically experience the greatest degree of pressure during movement. The embodiment described below and shown in FIGS. **7-9** utilizes a similar configuration of sensors **16**. Each sensor **16** is configured for detecting a force exerted by a user's foot on the sensor **16**. The sensors communicate with the port **14** through sensor leads **18**, which may be wire leads and/or another electrical conductor or suitable communication medium. For example, in one embodiment, the sensor leads **18** may be an electrically conductive medium printed on the foot contacting member **133**, the midsole member **131**, or another member of the sole structure **130**, such as a layer between the foot contacting member **133** and the midsole member **131**.

[0121] Other embodiments of the sensor system **12** may contain a different number or configuration of sensors **16**, such as the embodiments described below and shown in FIGS. **7-9** and generally include at least one sensor **16**. For example, in one embodiment, the system **12** includes a much larger number of sensors, and in another embodiment, the system **12** includes two sensors, one in the heel and one in the forefoot of the shoe **100**. In addition, the sensors **16** may communicate with the port **14** in a different manner, including any known type of wired or wireless communication, including Bluetooth and near-field communication. A pair of shoes may be provided with sensor systems **12** in each shoe of the pair, and it is understood that the paired sensor systems may operate synergistically or may operate independently of each other, and that the sensor systems in each shoe may or may not communicate with each other. The communication of the sensor systems **12** is described in greater detail below. It is understood that the sensor system **12** may be provided with computer programs/algorithms to control collection and storage of data (e.g., pressure data from interaction of a user's foot with the ground or other contact surface), and that these programs/algorithms may be stored in and/or executed by the sensors **16**, the port **14**, the module **22**, and/or the external device **110**. The sensors **16** may include necessary components (e.g. a processor, memory, software, TX/RX, etc.) in order to accomplish storage and/or execution of such computer programs/algorithms and/or direct (wired or wireless) transmission of data and/or other information to the port **14** and/or the external device **110**.

[0122] The sensor system **12** can be positioned in several configurations in the sole **130** of the shoe **100**. In the examples shown in FIGS. **4-5**, the port **14**, the sensors **16**, and the leads **18** can be positioned between the midsole **131** and the foot contacting member **133**, such as by connecting the port **14**, the sensors **16**, and/or the leads **18** to the top surface of the midsole **131** or the bottom surface of the foot contacting member **133**. A cavity or well **135** can be located in the midsole **131** (FIG. **4**) or in the foot contacting member **133** (FIG. **5**) for receiving an electronic module, as described below, and the port **14** may be accessible from within the well **135**. In the embodiment shown in FIG. **4**, the well **135** is formed by an opening in the upper major surface of the midsole **131**, and in the embodiment shown in FIG. **5**, the well **135** is formed by an opening in the lower major surface of the foot contacting member **133** foot contacting member **133**. The well **135** may be located elsewhere in the sole structure **130** in other embodiments. For example, the well **135** may be located partially within both the foot contacting member **133** and the midsole member **131** in one embodiment, or the well **135** may be located in the lower major surface of the midsole **131** or the upper major surface of the foot contacting member **133**. In a further embodiment, the well **135** may be located in the outsole **132** and may be accessible from outside the shoe **100**, such as through an opening in the side, bottom, or heel of the sole **130**. In the configurations illustrated in FIGS. **4-5**, the